

# **EXHIBIT 21**



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## SPECIALTY FIBERS : ACTIVE FIBERS : ERBIUM / YTTERBIUM DOUBLE CLAD DOPED FIBERS

For amplifier and fiber laser @ 1.5  $\mu\text{m}$

Erbium Ytterbium doped fiber is a critical component ideal for high power laser. iXblue Photonics develops a full range of Erbium Ytterbium doped optical fibers dedicated to a wide range of fiber lasers.

iXblue Photonics Erbium Ytterbium doped fiber products have been customized to address the specific requirements of high efficiency and low noise for high power fiber lasers

### Key Features

- High efficiency
- High pump and consistent absorption
- High brightness single mode core
- Low background losses
- Large mode area with low NA
- Multimode background (dB/km): <50
- Cladding NA: 0.46
- Cladding shape: octagonal (non PM) / round (PM)
- Birefringence:  $>2.10^{-4}$  / Panda type
- Power Conversion slope Efficiency (PCE): >40%
- Proof test level (kpsi): 100
- Core diameter: up to 30  $\mu\text{m}$

Er / Yb

1550 nm band

### APPLICATIONS

- 1.5  $\mu\text{m}$  High Power Lasers and Amplifiers
- 1.5  $\mu\text{m}$  CW and Pulsed Lasers
- CATV Amplifiers
- LIDAR
- Aucune application liée à ce produit

## RELATED PRODUCTS

- Erbium Doped Fibers (<https://photonics.ixblue.com/products-list-detail/erbium-doped-fibers>)
- Radiation Hardened Low Power Doped Fibers (<https://photonics.ixblue.com/products-list-detail/radiation-hardened-low-power-doped-fibers>)
- Radiation Hardened Medium Power Doped Fibers (<https://photonics.ixblue.com/products-list-detail/radiation-hardened-medium-power-doped-fibers>)

Product Name	Core diam. ( $\mu\text{m}$ )	Clad Abs. @ 915 nm (dB/m)	Clad Abs. @ 976 nm (dB/m)	Core Abs. @ 1536 nm (dB/m)	Core NA (+/- 0.02)	Cladding Diameter Flat/Flat ( $\mu\text{m}$ )	Coating diam. ( $\mu\text{m}$ )
IXF-2CF-EY-O-6-130	6 +/-0.5	> 0.6	>2	> 45	0.19	125 +/-3	245 +/-15
IXF-2CF-EY-O-6-130-LNF	6 +/-0.5	> 0.6	> 2	> 25	0.19	125 +/-3	245 +/-15
IXF-2CF-EY-O-12-130	12 +/-1	> 2.5	> 10	> 40	0.19	125 +/-3	245 +/-15
IXF-2CF-EY-O-17-130	17 +/-1	> 4	> 16	> 45	0.19	125 +/-3	245 +/-15
IXF-2CF-EY-O-30-300	30 +/-2	> 3	> 12	> 75	0.09	300 +/-10	470 +/-15
IXF-2CF-EY-O-25-250	25 +/- 2	> 3	> 12	> 45	0.09	250 +/- 5	345 +/- 15
IXF-2CF-EY-PM-6-130-LNF	6 +/- 0.5	> 0.6	> 2	> 25	0.19	125 +/- 3	245 +/- 15
IXF-2CF-EY-PM-12-130	12 +/- 1	> 2.5	> 10	> 40	0.19	125 +/- 3	245 +/- 15
IXF-2CF-EY-PM-15-160	15 +/- 1	> 2	> 8	45 - 70	0.19	160 +/- 3	255 +/- 15



Information request (<https://photonics.ixblue.com/contact-us/informations-request>)



Download Erbium / Ytterbium Double Clad Doped Fibers (/files/files/pdf/Fibers/Er\_Yb\_Double\_Clad.pdf)

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IXBlue Photonics offers the family of iXBlue specialty fibers : Er doped fibers , Er/Yb doped fibers, double clad fibers, Thulium doped fibers, polarization maintaining fibers, spun fibers, fiber Bragg gratings, FBG laser mirrors